

CLAIMS

What is claimed is:

1. A resource manager for a security system network comprising:
one or more devices for collecting and/or managing data from an environment;
one or more users that submit operation requests for the data; and
a controller that receives the operation requests, determines load characteristics of the devices, and allocates the devices to the operation requests according to the load characteristics.
2. A resource manager according to claim 1 wherein the controller generates allocation requests that attempt to allocate the operation requests to the devices in response to the operation requests.
3. A resource manager according to claim 1 wherein the controller generates a graphical representation of the load characteristics.
4. The resource manager according to claim 1 wherein the load characteristics include availability of the devices.
5. The resource manager according to claim 1 wherein the load characteristics include media flow data of the devices.

6. The resource manager according to claim 5 wherein the media flow data includes a source identifier, a media format, a media bandwidth requirement, a multi-cast address, and a service identifier.

7. The resource manager according to claim 1 wherein load characteristics include location of the devices, availability of the devices, and current media flow of the devices.

8. The resource manager according to claim 1 wherein the devices include a camera that collects multimedia data.

9. The resource manager according to claim 8 wherein the camera streams the multimedia data in one or more media formats.

10. The resource manager according to claim 8 further comprising a multimedia recorder that records the multimedia data.

11. The resource manager according to claim 10 wherein the multimedia recorder plays the multimedia data in response to the operation requests.

12. The resource manager according to claim 10 further comprising an analyzer server that collects meta-data from the multimedia data.

13. The resource manager according to claim 12 wherein the analyzer server collects the meta-data directly from the camera.

14. The resource manager according to claim 12 wherein the analyzer server collects the meta-data from the multimedia recorder.

15. The resource manager according to claim 10 further comprising a meta-data server that stores the meta-data.

16. The resource manager according to claim 15 wherein the operation requests include searching the meta-data server for meta-data.

17. The resource manager according to claim 1 wherein the operation requests include record requests, analysis requests, play requests, and search requests.

18. The resource manager according to claim 17 wherein the record requests include at least one of a source camera identifier, a media recording format, a recording purpose, and a duration of recording.

19. The resource manager according to claim 17 wherein the analysis request includes a source camera identifier and a duration of analysis.

20. The resource manager according to claim 17 wherein the analysis request includes an identity and a location of a multimedia file.

21. The resource manager according to claim 17 wherein the play request includes an identity and a location of a multimedia file.

22. The resource manager of claim 1 further comprising an Internet gateway server that connects the users to the security system network.

23. The resource manager of claim 1 wherein the controller generates a schedule for the requests based on the load characteristics.

24. The resource manager of claim 1 wherein the controller prioritizes the operation requests.

25. The resource manager of claim 1 wherein the operation requests are generated by one of a user, an alarm, and a scheduled event.

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26. A resource manager for a security system network comprising:

- a camera that collects multimedia data;
- a multimedia recorder that stores the multimedia data;
- an analyzer that extracts meta-data from the multimedia data;
- one or more users that submit operation requests for the data; and
- a controller that receives the operation requests, communicates with the camera, the multimedia recorder, and the analyzer to determine load characteristics, and allocates the operation requests according to the load characteristics.

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27. A method for allocating resources in a security system network comprising:

collecting data from an environment at one or more network resources;

submitting requests for the data from one or more users;

determining load characteristics of the network resources at a controller; and

allocating the network resources to the requests according to the load characteristics.

28. The method of claim 27 wherein allocating resources includes generating a schedule for the requests based on the load characteristics.

29. The method of claim 28 wherein generating a schedule includes prioritizing the requests based on network criteria.

30. The method of claim 27 wherein allocating the network resources includes determining a set of candidate devices, assigning scores to each candidate device in the set, and communicating with the candidate devices according to the scores.

31. The method of claim 30 further comprising calculating the scores according to a current load, a location on a the network, and existing media flows.

32. The method of claim 27 wherein communicating with the candidate devices includes determining availability of the candidate devices.

33. The method of claim 27 wherein determining load characteristics includes generating a graphical representation of the load characteristics.

34. The method of claim 33 wherein the graphical representation is a topographical map of the network.

35. The method of claim 34 wherein the topographical map includes indicia of networks and the network resources in the security system network.

36. The method of claim 33 further comprising determining costs of allocating the network resources to the requests according to the graphical representation.

37. The method of claim 36 further comprising storing the costs in a matrix.

38. The method of claim 27 further comprising generating a set of rules according to preferences of the users.

39. The method of claim 38 wherein allocating the network resources includes allocating the network resources according to the set of rules.